

REMARKS

Claims 51, 53, 55-56, 59, 71-73, 75, 77-78, 84, 86, 88-89, 95-98, 100, 102-104, 106, 108-112, 114 and 116-121 were pending in the application. Claims 51, 71-72, 84, 95, 104, 112 and 118-121 have been amended. Claims 59 and 73 have been canceled herein. Accordingly, claims 51, 53, 55-56, 71-72, 75, 77-78, 84, 86, 88-89, 95-98, 100, 102-104, 106, 108-112, 114 and 116-121 are pending following entry of this amendment.

Support for the amendments to claims 51, 71-72, 84, 95, 104, 112 and 118-121 can be found in the claims as originally filed and throughout the specification. No new matter has been added.

Amendments to the claims should in no way be construed as acquiescent to any of the Examiner's rejections and were made solely to expedite the prosecution of the application. Applicants reserve the right to pursue the claims as originally filed in this or a separate application(s).

Withdrawal of Rejection of Claims 51, 53, 55-56, 59, 71-73, 75, 77-78, 84, 86, 88-89, 95-97, 100, 102-104, 106, 108-112, 114 and 116-121 Under 35 USC § 102

In the Advisory Action of October 20, 2005, the Examiner communicates that Applicants' Reply of September 6, 2005 has overcome the Examiner's previous rejection under 35 USC § 102. Applicants gratefully acknowledge the withdrawal of this rejection of claims 95-98, 100, 102-104, 106, 108-112, 114, 116-117 and 118-121.

Rejection of Claims 51, 53, 55-56, 59, 71-73, 75, 77-78, 84, 86, 88-89, 95-100, 102-104, 106, 108-112, 114, and 116-121 Under 35 U.S.C. § 112, First Paragraph, Written Description

The Examiner has maintained his previous rejection of claims 51, 53, 55-56, 59, 71-73, 75, 77-78, 84, 86, 88-89, 95-100, 102-104, 106, 108-112, 114, and 116-121 51, 53, 55-56, 59, 71-73, 75, 77-78, 84, 86, 88-89, 95-100, 102-104, 106, 108-112, 114, and 116-121 under 35 USC § 112, first paragraph, as lacking written description. The Examiner specifically objects to use of the term "soluble LT β R" as overly broad in view of the species of soluble LT β R defined in the specification. The Examiner contends that "no specific domain has been specifically

identified as being the critical portion for ligand binding in order for the genus to be encompassed. Thus the written description for the broad [sic] genus cannot be represented by the limited number of species that are presented in the specification.” Applicants continue to find this rejection improper for reasons cited in their Replies filed February 24, 2005 and September 6, 2005. However, solely in the interest of expediting prosecution of the instant application, claims 51, 71-72, 84, 95, 104, 112 and 118-121 have been amended to specify use of a soluble, human form of LT β R. In the present application, Applicants have functionally characterized a soluble, human form of LT β R, and the specification **defines the LT β R ligand binding domain as the critical functional domain** characteristic of any soluble LT β R receptor of the invention. Applicants have further provided a detailed example of a soluble, human form of LT β R as SEQ ID NO:1. One of ordinary skill in the art would understand a soluble, human form of LT β R to include SEQ ID NO:1, as well as functional, ligand-binding fragments of a human LT β R extracellular domain or SEQ ID NO:1. No additional teaching is necessary for practice of the present invention, as the portion of a human LT β R that is critical for the ligand binding function of the instant invention is **the art-recognized ligand binding region contained within the LT β R extracellular domain**. For further proof of the art-recognized nature of the LT β R ligand binding domain, Applicants respectfully direct the Examiner’s attention to Figures 4D and 6A of Force *et al.* (*J Immunol.* 155: 5280-5288; referenced within the present specification at least at page 26, lines 14-15). Figure 4D displays the four cysteine-rich repeats of the LT β R ligand binding region that were known at the time of filing to possess functional ligand binding capability. Figure 6A presents detailed sequence information for LT β R, and displays an alignment of LT β R with several other tumor necrosis factor (TNF) family receptors. Cysteine-rich repeats are conserved between all TNF family members, including LT β R, and were definitively identified as critical to ligand binding prior to the time of filing (refer to Banner *et al.* 1993 *Cell* 73: 431-35, which describes the crystal structure of the TNF receptor-TNF ligand complex). Thus, the molecular topology, sequence and homology information presented in Figures 4D and 6A of the Force *et al.* reference, especially when combined with crystal structure knowledge of TNF receptor family ligand binding domains and the teachings of the present specification, would comprehensively inform one of skill in the art of the scope of the term “soluble human LT β R” as used in the present claims.

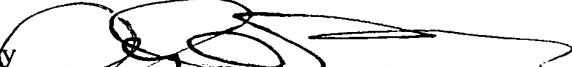
Applicants respectfully remind the Examiner of the recent Federal Circuit holding that where the structure and properties of a protein or domain thereof are known in the art, reanalysis of that protein or domain thereof is not required. *Capon v. Dudas* 418 F.3d 1349, 1358 (U.S. App. 2005). The present specification describes a soluble, human form of LT β R to include the LT β R extracellular domain and functional fragments thereof, which are further described as *those fragments that possess ligand binding activity, an activity that had been ascribed to a specific, art-recognized domain at the time of filing*. Specific guidance regarding the location of ligand binding activity within an LT β R molecule is found at least in Figures 4D and 6A of Force *et al.*, as well as in the crystal structure data of Banner *et al.* The present specification therefore describes the scope of the soluble human LT β R compositions featured in the instant invention in sufficient detail for one of ordinary skill in the art to recognize the scope of the claimed invention. Applicants therefore request that this rejection be reconsidered and withdrawn.

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Applicants believe no fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. BGNA013 from which the undersigned is authorized to draw.

Dated: December 1, 2005

Respectfully submitted,

By 
Amy E. Mandragouras
Registration No. 36,207
LAHIVE & COOKFIELD, LLP
28 State Street
Boston, Massachusetts 02109
(617) 227-7400
(617) 742-4214 (Fax)
Attorney/Agent For Applicants